

## **REMARKS**

Claims 1-26 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejection in view of the amendments and remarks contained herein.

### **CONTINUED EXAMINATION UNDER 37 CFR 1.114**

The undersigned gratefully acknowledges the Examiner's acceptance of Applicant's Request for Continued Examination, timely filed on December 19, 2005.

### **REJECTION UNDER 35 U.S.C. § 102**

Claims 17 and 24-26 stand rejected under 35 U.S.C. § 102(e) as being unpatentable by Kataoka et al. (U.S. Pat. No. 8,834,632) Claims 17 and 26 stand rejected under 35 U.S.C. § 102(e) as being unpatentable by Tatara et al (U.S. Pat. App. No. 2003/0217877). These rejections are respectfully traversed.

Applicant's claim 17 has been amended to indicate that variable displacement transitions are "transitions between an activated mode where the ICE is operating with all cylinders active and a deactivated mode where the ICE is operating with less than all cylinders active." Neither Kataoka nor Tatara disclose a variable displacement engine that smoothes disturbances in ICE torque using the electric machine during these transitions.

Claims 24-26 depend on independent claim 17 and for the reason set forth above, distinguish over the cited art. Accordingly, Kataoka and Tatara fail to teach

every element of claims 17 and 24-26. Therefore Applicant respectfully requests reconsideration and withdrawal of the rejection.

**REJECTION UNDER 35 U.S.C. § 103**

Claims 24 and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Tatara et al. in view of Kataoka et al. This rejection is respectfully traversed.

Claims 24 and 25 are dependent on claim 17 and for the reasons set forth above, distinguish over the cited art. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection.

Claims 1, 4-6, 9, 10, 13, 14, 17-21, 24, and 26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bhavsar et al (U.S. Pat. No. 6,691,807) in view of Phillips et al (U.S. Pat. No. 6,581,705). This rejection is respectfully traversed.

Bhavsar et al disclose a variable displacement engine wherein the cylinders can be operated in the activated mode where all cylinders are active or in a deactivated mode where less than all cylinders are active. (Col. 4, lines 17-27) A motor is controlled to prevent shifting between the modes. (Col. 7, lines 10-18) As pointed out by the Examiner, nowhere does Bhavasar discuss controlling the motor during transitions between the modes.

Phillips et al disclose a strategy to start a parallel HEV powertrain engine. More specifically, a disconnect clutch is controlled to connect the engine to the powertrain upon engine startup. (Col. 2, lines 20-24) Engine torque and motor torque are simultaneously controlled to provide a smooth vehicle response when connecting the engine to the powertrain. (Abstract) Philips does not disclose a variable displacement

engine. Philips does not disclose an engine that transitions between an activated mode where all cylinders are active and a deactivated mode where the engine is operating with less than all cylinders active. Philips does not disclose smoothing disturbances in ICE torque during the deactivation and reactivation transitions using the electric machine. At best, Philips discloses smoothing disturbances while connecting the already operating engine to the powertrain.

Therefore it would not have been obvious to one skilled in the art to combine the two references since one relates specifically to a variable displacement engine and the other teaches away by specifically disclosing a parallel HEV engine. And even if combined, the two references would not show, teach, or suggest smoothing disturbances in ICE torque during the deactivation and reactivation transitions using the electric machine.

Therefore Applicant respectfully requests reconsideration and withdrawal of the rejection.

**ALLOWABLE SUBJECT MATTER**

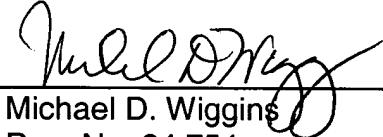
Applicants would like to thank the Examiner for favorable consideration of Claims 2, 3, 7, 8, 11, 12, 15, 16, 22 and 23, which were indicated as allowable if rewritten in independent form. Applicants reserve the right to rewrite any or all of Claims 2, 3, 7, 8, 11, 12, 15, 16, 22 and 23 at a later date as needed.

**CONCLUSION**

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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